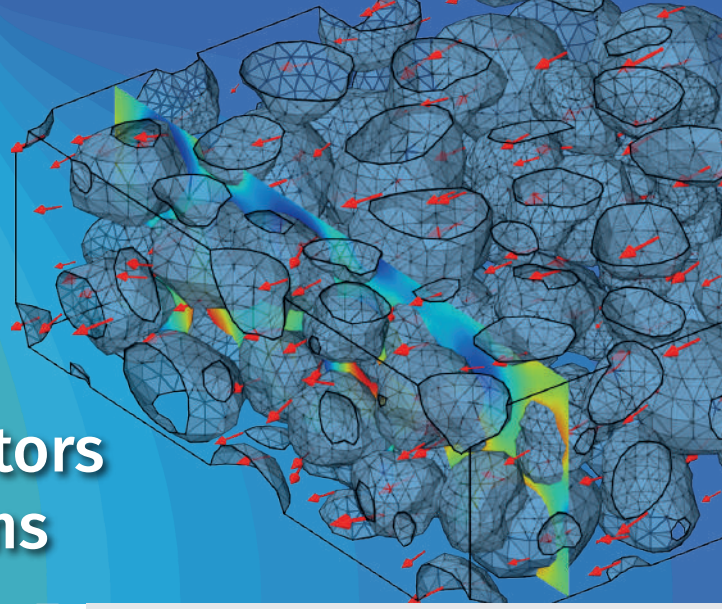


# AMaSiS 2020

## Applied Mathematics and Simulation for Semiconductors and Electrochemical Systems



**AMaSiS 2020** is an interdisciplinary workshop dedicated to mathematical modeling of semiconductors and electrochemical systems. Due to inherent similarities between both disciplines, AMaSiS 2020 explores synergies in mathematical modeling, analysis, numerics, and simulation techniques. The conference brings together experts from applied mathematics, physics, engineering, chemistry, and material science and covers the following topics:

- electronic structure theory (density functional theory, tight-binding, effective mass models)
- non-equilibrium thermodynamics and transport theory (drift-diffusion models, heat flow, kinetics, non-equilibrium Green's functions)
- mathematical upscaling from quantum models and particle systems to continuum scale (homogenization, asymptotic methods)
- semiconductor devices (LEDs, transistors, etc.)
- electrochemical systems (fundamental electrochemistry, batteries, fuel cells, photo-catalysis)

### Invited Speakers

G. Allaire (CMAP Paris)	R. McMeeking (UC Santa Barbara)
M. Bruna (U Cambridge)	C. Negulescu (U Toulouse III)
E. Cancès (École des Ponts ParisTech)	E. O'Reilly (U Cork, Tyndall Institute)
M. Caro (U Aalto)	A. Pecchia (U Roma Tor Vergata)
C. Chainais-Hillairet (U Lille 1)	F. Römer (U Kassel)
M. Eikerling (FZ Jülich)	A. Schenk (ETH Zurich)
M. Grundmann (U Leipzig)	S. Schulz (Tyndall Institute)
U. Kreuer (TU Braunschweig)	M. Todorova (MPIE Düsseldorf)
A. Latz (HI Ulm)	A. van der Ven (UC Santa Barbara)
M. Liero (WIAS Berlin)	

Other speakers to be confirmed.



### Contact

amasis2020@wias-berlin.de  
www.wias-berlin.de/workshops/amasis2020

**October 5–9, 2020**

### Venue

Weierstrass Institute  
Mohrenstraße 39, 10117 Berlin, Germany



### Deadlines

Abstract submission **June 28, 2020**  
Registration **September 7, 2020**

### Organizers

Jürgen Fuhrmann (WIAS Berlin)  
Annegret Gitzky (WIAS Berlin)  
Ansgar Jüngel (TU Vienna)  
Hans-Christoph Kaiser (WIAS Berlin)  
Markus Kantner (WIAS Berlin)  
Manuel Landstorfer (WIAS Berlin)  
Oliver Marquardt (WIAS Berlin)

### Conference Fee

90 € (including conference dinner, social event & coffee break refreshments)

### Call for Papers

We welcome abstracts for contributed talks or posters until June 28, 2020. See our website for LaTeX templates.

### Support

Berlin Mathematics Research Center



**MATH+**

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Applied Analysis and Stochastics